

**CAC Meeting  
January 17, 2002  
held at  
Dept of Environmental Quality  
168 North 1950 West, Second Building  
Salt lake City, UT 84119**

***Members Present:***

BENNETT, John	Citizen
BOWMAN, Dr. Jane	Obstetrician
DOWNS, Dennis	DEQ/DSHW
HULLINGER, Sid	Tooele County Citizen
KIM, Deborah	U of U, Board Chair
OSTLER, David	Citizen
SILCOX, Dr. Geoff	U of U
WHITE, Beverly	Tooele County
WHITE, Gene	Tooele County Commission
BAUER, Dan	Citizen
HOLT, Rosemary	Women Concerned/Utahns United

The meeting was brought to order at 6:05pm by Debbie Kim, Chair of the Citizen's Advisory Commission.

**Announcements:**

1. Dr. Mario P. Fiori has been recently appointed as Assistant Secretary of the Army for Installations and Environment, and will have responsibility for the overall management of the chemical demilitarization process. This is an organizational change for the Department of the Army. Dr. Fiori met with Ms. Kim and some members from DCD early in December 2002.

2. Mr. Mike Myirski will be presenting. He is the Meteorologist for Product Manager CSEPP Program of Aberdeen Proving Ground. He is speaking about the Plume Modeling using D2PC and D2PC Puff AEGLS and Plume Modeling.

**Program updates:**

1. Ted Ryba spoke in place of Monty Caldwell regarding program status. Other technologies are being looked at other than incineration when they become available. TOCDF will continue to maintain plan and schedule as is. Anniston is 100% complete. Trial runs will begin in February. Incineration will begin later this year.

2. Plant Status-Tom Kurkjy

Tom gave the status of plant and remaining amount of GB projectiles remaining as of January 14, 2002. The plant is rapidly approaching end of GB campaign.

As of this meeting, there have been 57 days without a lost time accident. Tom described the incident, which occurred at TOCDF, which prompted the change in the statistics. In follow up, there has been an investigation and some corrective training will be implemented. There were two (2) Level 3 occurrences. The investigations are still underway. He will report the findings at the next meeting. The following represent the questions posed to Mr. Kurkij:

Q-When the measured air levels exceeded TWA, were the figures you reported an ACAMS reading? Answer: YES.

Q- What are the upper limits on ACAMS?

A-Upper limit on ACAMS is up to 500 TWA. Category C areas are always TWA, others are at IDLH. (TWA-Time waited average. IDLH-Immediately dangerous to life and health. The suits ( DPE (Demilitarization Protective Ensemble) worn in the IDLH areas are rated to 500 IDLH.

All employees in the area who were potentially exposed were sent to the clinic for evaluation and blood draws. The clinic views this incident as a potential exposure and proceeds accordingly. Six staff (6) were potentially exposed, 2 chose to be tested others did not.

Discussion: There was interest on part of the Commission to have additional knowledge on the difference between TWA and IDLH levels. Debbie Kim indicated that she will find a person to discuss the levels of TWA and IDLH and toxicity levels. We will add this to a future agenda.

Q-Will you follow up with why they have higher levels of PPE on?

A-The readings in the room at the time, were .19 IDLH, Mod level A is good up to 5 IDLH, with an action level of 4 IDLH where the entrants will get out. The level of dress was based on the room temperature at the time. The room temperature exceeded the allowable level for the DPE suit.

Q-Is it determined where the agent came from that resulted in the dramatic increase of agent?

A-They were working on a flex hose that connects the agent line to the agent gun. There was a small leak in the flex line. Operation had air-purged that line. However, drops of agent were left in the line. Agent was observed when disconnecting the hose.

Q-Was this expected?

A-This amount was not expected, some agent was expected, readings went from below LOQ (Limit of Quantification) level to 14.5 IDLH in one cycle.

3. Stockpile report-CAMDS- Col. Peter Cooper

Depot still remains at 3<sup>rd</sup> level of security. The California National Guard is still deployed on the depot. There is restricted airspace involving a 5-mile radius, up to 8000

ft. During Olympics the agent movement will be restricted. There will be increased staffing in the Outreach Office to help with any inquiries.

CAMDS has merged with the Depot. It is now called the Oquirrh Mountain Facility. The interest in alternative technologies has grown since 9/11. There is an R&D effort looking at water neutralization process.

The Commissioners asked for additional information about the action regarding the no-fly zone and the restricted air space and asked that it be placed on the agenda for the next meeting.

4. DSHW Update - Marty Gray

A new risk assessment has been delivered. The risk assessment will reviewed for completeness, will start a public comment period on the assessment as soon as possible. Present the findings of the assessment at the CAC meeting. The CAC meeting would act as the public meeting for this risk assessment.

There was a formal request Cindy King. That a public meeting be held in addition to the CAC meeting.

Q-The next CAC meeting will be held after the public comment period will be over. Is there a way to have another meeting on top of the CAC?

Q-We will still be in the public comment period after the next CAC meeting. Does the public have access to the risk assessment?

A -The assessment will be sent out within the next two weeks. The assessment is available to the public.

There may be an additional public meeting held in addition to the CAC meeting held in March.

5. Guest Presentation:

Mr. Michael Myirski, -Meteorologist for Program Manager of the CSEPP program. The topic of discussion is the D2PC and D2PC Puff AEGLS and Plume Modeling.

Very detailed information regarding the chemical plume modeling which can be used to simulate potential accidents that can occur at the depot as well as potential impact of the new toxicity standards that are being developed the EPA called AEGLS (Advanced Exposure Guideline Levels).

The models used are over-estimated, not concerned with accuracy, want conservative numbers.

Before any chemical operation can be conducted the Army is required to conduct a hazard assessment, called a maximum credible event (MCE). Then a model is built to simulate the accident under the conditions currently experiencing. If a certain

concentration or dosage value exceeds the depot boundary, that particular operation cannot be conducted. Timing is the most important issue in notifying and protecting the general public if an accident has occurred with the effects of the accident. The weather and plume modeling information is updated every 15 minutes.

The more sophisticated approach is called a puff model which can account for more complex terrain and account for the spatial and temporal variability in a wind field. This creates a more accurate or conservative reading of a potential accident accounting for the variability of any potential plume in any atmosphere.

Q-How similar are the two models? Better data, more accurate?

A-Certain conditions in which we call steady state conditions in which the wind is fairly constant, and not too much complex terrain, the two models give similar results. When the varying wind field is present, is when the significant differences are seen. When comparing D2 and D2Puff, the limitation of D2 is the constant for wind direction. When D2 is run, the plumes go much further distances than are actually realistic to occur, because they require the plume to go in one direction. D2 creates longer straighter plumes, D2 Puff doesn't produce the maximum distances, but has a wider footprint closer to the depot.

There is no practical limitation on how many meteorological sources that can be used for these models. There are no chemical agent monitors in Tooele. These stations monitor the particulates in the air.

Q-Is it quantifiable on how much conservatism, by a percentage, is used?

A-It requires actual experiments at each particular site, and then compare modeling data with exact measurements. Field trials are too vast to derive numbers to determine how conservative. These models are based on flat terrain. We are confident that results are over estimated. We apply the worst possible scenarios.

Q-When was it decided to design the D2 Puff model?

A-1997

Q-What happens inside your home?

A-Shelter-in-place is a very effective measure. There will be a presentation about Shelter-in-place at the next CAC meeting. The Army has recently conducted effectiveness studies and results show that shelter-in-place is very effective.

Q-Is this a downloadable program?

A-Not currently, but an earlier version is available. It can be made available; however there are proprietary issues at hand, but this can be encouraged to be available to those who would like it. If a copy would like to be obtained, please provide a written request to Mr. Myirski

## **AEGLS-Toxicity information**

There are three standard levels for each chemical weapons that are stored. The first is 1% lethality, used only for operational planning purposes. No effects level is the smallest level of concentration for toxicity standards calculate maximum plume distance. 3<sup>rd</sup> value will not be discussed. AEGLS count for sensitive portions of population. A group of experts in toxicology was formed to develop a consistent new set of toxicity standards called AEGLS. Acute Exposure Guideline Levels. This group meets 4 times a year, public comment accepted at a particular time of each year, then provide results to independent experts to review as well.

The body can detoxify certain chemical agents over a certain period of time. Short duration of exposure to a higher level is more dangerous than exposure to chemicals at a smaller concentration over a longer period of time.

AEGL 1-smallest concentration of exposure-not disabling

AEGL 2- higher concentration with more effects-significant effects

AEGL 3-Life threatening concentrations-increasing likelihood of dying

Talked about various toxicity standards with various model scenarios. Have to await to National Academies for approval of the new standards. No need to change shelter-in-place, but train hazmat people with new standards. Target date of November of this year to have all the AEGLS in operation at all of the chemical depots.

No AEGLS have been developed for by-products.

This is an emergency preparedness program designed to protect the public from a one-time short-term exposure, not dealing with chronic exposure.

Several comparisons have been made with the EPA models and come up with virtually identical results with maximum concentration levels.

Watery eyes, runny nose, sweating are the most common effects of minimum exposures.

Spills, explosions fires and stack releases are 4 scenarios that fully account for the types of hypothetical accidents.

There being no further business, the meeting was adjourned at 8:30 pm. The next meeting will be on March 21, 2002, in Tooele at 6:30.

Respectfully submitted,

Deborah H. Kim, Chairperson, Citizens Advisory Commission

Heather Greenwall, Secretary for the Citizens Advisory Commission